

ASSIGNMENT 2

Textbook Assignment: "Ship Compartmentation and Watertight Integrity" and "Fire-Fighting Fundamentals," chapters 3 and 4.

Learning Objective: Recall the definitions of terms used to define the structure of the hull of a ship and the numbering systems used to identify the different compartments of a ship.

2-1. Most structural members of the hull of a ship are either directly or indirectly attached to what structure?

1. Gunwale
2. Keel
3. A-strake
4. Bulwark

2-2. What structures provide extra transverse stiffening and partition the hull into independent watertight sections?

1. Watertight stanchions
2. Watertight brackets
3. Watertight bulkheads
4. Watertight rider plates

2-3. On all ships except aircraft carriers, the uppermost complete deck is identified as the main deck. What deck is identified as the main deck on an aircraft carrier?

1. Gun deck
2. Forecastle
3. Hangar deck
4. Flight deck

2-4. The first complete deck below the main deck is identified as what deck?

1. First
2. Second
3. Third
4. Fourth

2-5. The boat deck is what level above the main deck?

1. 01
2. 02
3. 03
4. 04

Learning Objective: Recall compartment number designations for ships built after March 1949.

2-6. Compartment identifiers have a four-part number separated by hyphens; the four parts indicate: (1) the deck upon which the compartment is located, (2) the fore-and-aft locations of the compartment, (3) the position of the compartment relative to the ship's centerline, and (4) the compartment use.

1. True
2. False

2-7. All frames forward of the forward perpendicular are identified by a capital letter, starting with A. The frames aft of the aft perpendicular are identified with double capital letters, starting with

1. AA
2. BB
3. MM
4. ZZ

2-8. How are compartments completely to starboard on a ship identified?

1. By assigned even numbers
2. By assigned odd numbers
3. By assigned even numbers plus the letter *S*
4. By assigned odd numbers plus the letter *R*

2-9. On dry- and liquid-cargo ships, how is the primary use of a cargo space identified to differentiate it from spaces containing the same commodity for use by the ship?

1. A letter and a number is used
2. A double letter is used
3. A double letter and a number is used
4. A double letter plus a capital letter *C* is used

Learning Objective: Recall different types of watertight closures and the inspection procedures for the closures.

2-10. Which of the following is NOT a watertight closure or fitting?

1. Watertight doors
2. Raised watertight hatches
3. Raised watertight hatches with scuttles
4. Watertight bulkheads

2-11. What type of watertight closure is usually found in low traffic areas that do not require either rapid access or egress?

1. Watertight doors
2. Raised watertight hatches
3. Raised watertight hatches with scuttles
4. Quick-acting watertight doors

2-12. When inspecting watertight closures, you must comply with the instructions in *Navy Safety Precautions for Forces Afloat*, OPNAVINST 5100 series.

1. True
2. False

2-13. The maximum acceptable warpage of a doorframe is what fraction of an inch?

1. 1/8
2. 1/4
3. 1/2
4. 3/4

Learning Objective: Recall the requirements for the three material conditions of readiness.

- 2-14. The term *material condition of readiness* refers to the degree of access and system closure in effect on a ship
1. at any given time
 2. when in port
 3. during wartime
 4. during naval operations
- 2-15. What are the names of the three material conditions of readiness?
1. ALPHA, BRAVO, and CHARLIE
 2. RED, WHITE, and BLUE
 3. X-RAY, YOKE, and ZEBRA
 4. MCON 1, MCON 2, and MCON 3
- 2-16. What material condition of readiness is set to isolate and control fires and flooding when the ship is not at GQ?
1. RED
 2. TWO
 3. CHARLIE
 4. ZEBRA
- 2-17. What person grants permission to open and close fittings in their assigned areas when the ship is at general quarters?
1. Executive officer
 2. Damage control assistant (DCA)
 3. Repair party officer
 4. OOD
- 2-18. CIRCLE X-RAY fittings are marked with a black X inside of a black circle. These modified closures are secured during what conditions?
1. X-RAY, YOKE, and ZEBRA
 2. X-RAY and YOKE only
 3. YOKE and ZEBRA only
 4. X-RAY and ZEBRA only
- 2-19. The access doors to missile handling and checkout area compartments are marked with what material condition of readiness?
1. X-RAY
 2. YOKE
 3. ZEBRA
 4. CIRCLE X-RAY
- 2-20. Which of the following compartment hatches are marked with a CIRCLE YOKE identifier?
1. Air-conditioning machinery room
 2. Scuttles for passing ammunition
 3. Air compressor room
 4. Steering gear power and ram room
- 2-21. ZEBRA fittings are marked with a red Z. Proper authorization to open fittings with this classification is required when the ship is at condition X-RAY.
1. True
 2. False

Learning Objective: Recall the purpose of the CCOL.

2-22. Compartment Checkoff Lists (CCOLs) provide an itemized listing of all classified fittings and closures used in damage control to set the specified

1. material condition of readiness
2. defense conditions
3. electronic countermeasures
4. protective measures

2-23. Guidelines listed in what manual are used to check and update CCOLs?

1. *NSTM*, chapter 079, volume 1
2. *NSTM*, chapter 079, volume 2
3. *NSTM*, chapter 079, volume 3
4. *NSTM*, chapter 079, volume 4

2-24. When a compartment has more than one entrance, duplicate CCOLs clearly labeled DUPLICATE must be posted at each entrance.

1. True
2. False

2-25. What person maintains a master copy of every CCOL on file in DCC?

1. Division officer
2. Repair team leader
3. DCA
4. OOD

Learning Objective: Recall the purpose of the damage control closure log and how to use it correctly.

2-26. During general quarters (GQ), who controls the opening and closing of all fittings in their assigned areas and keeps DCC informed so the ship's DC closure log can be kept up-to-date?

1. DCAs
2. Personnel in charge of repair lockers
3. Repair party officers
4. Division officers

2-27. What is the maximum time a closure or fitting may be logged open?

1. 48 hours
2. 36 hours
3. 30 hours
4. 24 hours

2-28. A common place for leakage is around dog spindles where the spindles pass

1. over heaters
2. through doorframes
3. through air-conditioned compartments
4. under vents

2-29. For a door or hatch to be watertight when it is dogged, the knife-edge or bearing surface of the closure must be centered on the gasket.

1. True
2. False

2-30. When opening a closure, you can protect yourself by standing on the opposite side from the hinges and loosening the dogs nearest the hinge first.

1. True
2. False

2-31. Watertight scuttles have a safety device known as a

1. safety catch
2. retaining ring
3. bracing link assembly
4. hinge pin

2-32. Most injuries to personnel connected with closures are the result of faulty design of the closure.

1. True
2. False

Learning Objective: Recall the procedures for checking watertight integrity.

2-33. Guidelines for compartment tests and inspections are provided in *NSTM*, chapter 079,

1. volume 1, "Damage Control"
2. volume 2, "Damage Control,"
3. volume 3, "Damage Control,"
4. volume 4, "Damage Control,"

2-34. Often you can discover holes or cracks in watertight bulkheads and decks by conducting a thorough visual inspection.

1. True
2. False

2-35. The Schedule of Watertight Integrity Tests and Inspections is issued by NAVSEA for each ship. This schedule contains information on each watertight compartment and the type of test used to determine the

1. type of OBAs used in the area
2. air quality in the compartment
3. tightness of the compartment
4. correct lubricant to use on doors

Learning Objective: Recall the components of the "fire triangle."

2-36. The fire triangle does NOT include which of the following components?

1. Fuel
2. Halogens
3. Heat
4. Oxygen

2-37. When a fire is detected aboard ship, you must report it immediately to the

1. LCPO
2. Executive officer
3. OOD
4. DCA

2-38. Details on fire extinguishing are contained in *NSTM*, chapter

1. 440, volume 1
2. 455, volume 1
3. 505, volume 1
4. 555, volume 1

2-39. Fire, also called combustion, can be extinguished by eliminating one side of the fire triangle.

1. True
2. False

2-40. Combustion involves a rapid chemical reaction by which oxygen combines with a burning substance. This chemical reaction is known as

1. liquefaction
2. titration
3. oxidation
4. reduction

2-41. In some types of materials slow oxidation can turn into fast oxidation resulting in a fire. This phenomenon is known as

1. titration
2. hydration
3. accelerated kinetics
4. spontaneous combustion

2-42. What is the definition of the fire point of a liquid fuel?

1. The lowest temperature at which the fuel gives off vapors that will burn when a flame is applied
2. The temperature that is one degree below that needed for ignition
3. The temperature at which the fuel will continue to burn after it is ignited
4. The highest temperature at which the fuel gives off vapors that explodes spontaneously

2-43. The temperature at which spontaneous combustion of a fuel occurs is known as the

1. fire point
2. flash point
3. explosive point
4. auto-ignition point

2-44. What is the definition of the flash point of a flammable substance?

1. The lowest temperature at which the fuel gives off vapors that will burn when a flame or spark is applied
2. The lowest temperature to which the fuel must be heated to give off vapors that will burn without the application of a spark or flame
3. The temperature at which the fuel will continue to burn after it is ignited
4. The highest temperature at which the fuel gives off vapors that explodes spontaneously

2-45. A minimum concentration of what percentage of oxygen in the air is needed to sustain flaming combustion?

1. 10
2. 15
3. 20
4. 25

2-46. What percentage of air is normally oxygen?

1. 10%
2. 21%
3. 33%
4. 78%

Learning Objective: Recall the different classifications of fires and identify the fire extinguishers used to extinguish each type of fire.

2-47. Fires are classified according to the

1. location of the fire
2. color of the fire
3. temperature of the air around the fire
4. combustible or fuel involved

2-48. A magnesium fire can be extinguished by covering it with a large volume of

1. PKP
2. soapy water
3. dry sand
4. gasoline

2-49. What type of extinguisher is primarily used to extinguish a class ALPHA fire?

1. AFFF
2. Large volumes of sand
3. Water
4. PKP

IN ANSWERING QUESTIONS 2-50 THROUGH 2-53, REFER TO FIGURE 2A AND SELECT FROM COLUMN B THE FIRE CLASSIFICATION FOR THE COMBUSTIBLE MATERIAL IN COLUMN A.

A. COMBUSTIBLE MATERIALS	B. CLASS OF FIRE
2-50. Electrical wiring and insulation	1. ALPHA
	2. BRAVO
2-51. Magnesium, titanium, and sodium	3. CHARLIE
	4. DELTA
2-52. Flammable liquids, such as gasoline, jet fuel, paints, oil, and grease	
2-53. Paper, wood, and mattresses	

Figure 2A

2-54. What type of extinguishers should be used to extinguish a class BRAVO fire?

1. AFFF, Halon 1301, PKP, CO₂, water fog
2. Jettison from ship; use large volumes of water and sand
3. Water and sand
4. CO₂ and Halon 1211 are preferred; PKP can be used

2-55. What type of extinguishers should be used to extinguish a class CHARLIE fire?

1. AFFF, Halon 1301, PKP, CO₂, water fog
2. Jettison from ship; use large volumes of water and sand
3. Water and sand
4. CO₂ and Halon 1211 are preferred; PKP can be used

2-56. What type of extinguishers are used to extinguish a class DELTA fire?

1. AFFF, Halon 1301, PKP, CO₂, water fog
2. Jettison from ship; use large volumes of water and sand
3. Water and AFFF
4. CO₂ and Halon 1211 are preferred; PKP can be used

Learning Objective: Recall the effects of fire and the properties of the gases given off during the combustion process.

2-57. The gases and other products of combustion produced by a fire reduces the amount of oxygen available for breathing.

1. True
2. False

2-58. Carbon monoxide (CO) is a colorless, odorless, tasteless, and nonirritating gas that

1. can kill people even in small concentrations
2. in very large doses can cause minor illness in small animals
3. poses no threat to humans
4. is used as a pesticide aboard ships

2-59. When fighting a fire, keep your OBA on until tests show that the oxygen content of the air is between

1. 23 to 24 percent by volume
2. 20 to 22 percent by volume
3. 18 to 19 percent by volume
4. 15 to 17 percent by volume

2-60. If CO is mixed with air in the amount of 12.5 to 74 percent by volume, an open flame or even a spark will cause

1. a simmering stew of gases
2. a violent explosion
3. the formation of carbon dioxide
4. a chemical reaction that produces carbon nitrate

2-61. A person rendered unconscious by exposure to a heavy concentration of carbon monoxide in an enclosed area will probably die if left in the area for what period of time?

1. Between 8 to 9 minutes
2. Between 6 to 7 minutes
3. Between 4 to 5 minutes
4. Between 1 to 3 minutes

2-62. Carbon dioxide is not poisonous; however, unconsciousness can result if a person is exposed to an atmosphere having a CO₂ volume of

1. 4 percent or higher
2. 5 percent or higher
3. 8 percent or higher
4. 10 percent or higher

2-63. What colorless and odorless gas is a good fire-extinguishing agent and is also used to inert fuel oil tanks?

1. Bromine
2. Hydrogen sulfide
3. Carbon dioxide
4. Oxygen

2-64. What colorless gas smells like rotten eggs and is extremely poisonous and violently explosive?

1. Carbon dioxide
2. Hydrogen sulfide
3. Carbon monoxide
4. Oxygen

2-65. An unprotected person takes one breath in an atmosphere containing 1,000 to 2,000 parts per million (ppm) of hydrogen sulfide. The person will soon become

1. feverish and faint
2. irritable and uncooperative
3. unconscious and possibly die
4. sick on the stomach

Learning Objective: Recall the fundamentals of fire extinguishing.

2-66. The method used to extinguish a fire depends on the classification of the fire and the circumstances surrounding the fire.

1. True
2. False

2-67. To keep fuel away from a fire, you should immediately open supply valves in fuel oil, lube oil, and JP-5 lines.

1. True
2. False

2-68. Heat may be transferred in three ways. These include convection, radiation, and

1. oxidation
2. reduction
3. conduction
4. projection

2-69. A fire that travels from one compartment to another via an airshaft is being spread by what means?

1. Radiation
2. Conduction
3. Convection
4. Projection

2-70. To extinguish a fire, you must reduce the oxygen content of air in an enclosed space to below what percentage?

1. 05
2. 08
3. 12
4. 15

IN ANSWERING QUESTIONS 2-71 THROUGH 2-74, REFER TO FIGURE 2B.

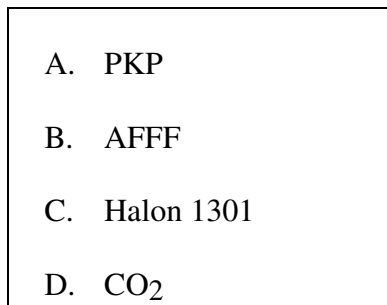


Figure 2B

2-71. Which extinguishing agent produces foam bubbles that form a vapor seal when they float over the surface of a flaming fuel?

1. A
2. B
3. C
4. D

2-72. Which extinguishing agent can be used in conjunction with AFFF to put a temporary screen between heat, oxygen, and fuel?

1. A
2. B
3. C
4. D

2-73. Which extinguishing agent is a noncorrosive gas and is also a nonconductor of electricity?

1. A
2. B
3. C
4. D

2-74. Which extinguishing agent is an odorless gas that interrupts the chemical reaction of the fire in a manner similar to the result of using PKP?

1. A
2. B
3. C
4. D

2-75. Do not stay in a space where Halon 1301 has been released unless you are

1. wearing an OBA
2. wearing a rubber apron
3. covered by a fire blanket
4. with at least two other people